

### ABSTRACT OF THE DISCLOSURE

5 A method for investigating specimens, wherein a spectral splitting of the radiation coming from the specimen is carried out for specimen points or point distributions, for the operation of a laser scanning microscope or a fluorescence screening arrangement or a flow cylinder comprising the steps of generating a  $\lambda$ -stack so that the spectral distribution is measured by individual detection channels and storing the signals so as to be correlated to the detection signals with at least one of the spatial coordinates  $x$ ,  $y$  and  $z$  and/or so as to be correlated to the measurement time  $t$ .